

=> FIL REG

FILE 'REGISTRY' ENTERED AT 13:11:08 ON 14 JUL 2011
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2011 American Chemical Society (ACS)

=> D HIS NOFILE

FILE 'HCAPLUS' ENTERED AT 10:54:47 ON 14 JUL 2011
E US2006-575597/APPS
L1 1 SEA US2006-575597/AP
E AUBERT THIERRY/AU
L2 27 SEA ("AUBERT T"/AU OR "AUBERT THIERRY"/AU)
E ARKEMA/CO
L3 1087 SEA ("ARKEMA FORMERLY ATOFINA CENTRE DE RECHERCHES RHONE
ALPES"+ALL/CO OR "ARKEMA FRANCE"+ALL/CO OR "ARKEMA FRANCE
CRRRA"+ALL/CO OR "ARKEMA FRANCE S A"+ALL/CO OR "ARKEMA FRANCE
SA"+ALL/CO OR "ARKEMA FRANCE SOCIETE ANONYME"+ALL/CO)
SEL L1 1- RN

FILE 'REGISTRY' ENTERED AT 10:56:03 ON 14 JUL 2011
L4 3 SEA (25038-36-2/BI OR 57-13-6/BI OR 657402-40-9/BI)

FILE 'LREGISTRY' ENTERED AT 11:03:27 ON 14 JUL 2011
L5 1 SEA UREA/CN
E VULTAC/CN

FILE 'REGISTRY' ENTERED AT 11:03:53 ON 14 JUL 2011
E VULTAC/CN
L6 1 SEA "VULTAC TB 7"/CN

FILE 'HCAPLUS' ENTERED AT 11:04:12 ON 14 JUL 2011
L7 9 SEA L6

FILE 'LREGISTRY' ENTERED AT 11:04:30 ON 14 JUL 2011
L8 STR

FILE 'REGISTRY' ENTERED AT 11:06:13 ON 14 JUL 2011
L9 SCR 2043
L10 43 SEA SSS SAM L8
L11 1 SEA SSS SAM L8 AND L9

FILE 'LREGISTRY' ENTERED AT 11:07:33 ON 14 JUL 2011
L12 STR L8

FILE 'REGISTRY' ENTERED AT 11:08:00 ON 14 JUL 2011
L13 0 SEA SSS SAM L9 AND L12

FILE 'LREGISTRY' ENTERED AT 11:09:32 ON 14 JUL 2011
L14 STR
L15 STR

FILE 'REGISTRY' ENTERED AT 11:11:57 ON 14 JUL 2011
L16 50 SEA SSS SAM L14 AND L15
L17 50 SEA SSS SAM L14 AND L15 AND L9

L18 FILE 'LREGISTRY' ENTERED AT 11:13:53 ON 14 JUL 2011
STR L15

L19 FILE 'REGISTRY' ENTERED AT 11:14:58 ON 14 JUL 2011
6 SEA SSS SAM L14 AND L18 AND L9

L20 FILE 'LREGISTRY' ENTERED AT 11:17:01 ON 14 JUL 2011
STR

L21 FILE 'REGISTRY' ENTERED AT 11:17:44 ON 14 JUL 2011
50 SEA SSS SAM L14 AND L20 AND L9
E VULTAC TB 7/CN
E VULTAC/CN

L22 1 SEA "VULTAC TB 710"/CN

L23 1 SEA "VULTAC 3"/CN

L24 9 SEA VULTAC#

L25 6 SEA L24 NOT (L6 OR L22 OR L23)
SEL L25 4 RN

L26 1 SEA 92769-21-6/BI

L27 5 SEA L25 NOT L26

L28 8 SEA L6 OR L22 OR L23 OR L27
SAV L28 BOY597/A

L29 1 SEA UREA/CN

L30 FILE 'HCAPLUS' ENTERED AT 11:43:22 ON 14 JUL 2011
55 SEA L28

L31 270706 SEA L29 OR UREA# OR H2NCONH2 OR NH2CONH2 OR CO(W)NH2(W)2

L32 1 SEA L30 AND L31

L33 FILE 'LREGISTRY' ENTERED AT 11:47:28 ON 14 JUL 2011
E SULFUR CHLORIDE/CN

L34 2 SEA "SULFUR CHLORIDE"/CN

L35 0 SEA 10545-99-0/CRN

L36 1 SEA 10025-67-9/CRN

L37 FILE 'REGISTRY' ENTERED AT 11:49:59 ON 14 JUL 2011
95 SEA 10545-99-0/CRN

L38 244 SEA 10025-67-9/CRN
E TRISULFUR DICHLORIDE/CN

L39 1 SEA "TRISULFUR DICHLORIDE"/CN
E TETRASULFUR DICHLORIDE/CN
E SULFUR CHLORIDE/CN

L40 1 SEA "SULFUR CHLORIDE (S13CL2)"/CN

L41 529 SEA CL S/ELF

L42 62 SEA L40 AND ?PHENOL?/CNS
E PMS/CI

L43 1410109 SEA PMS/CI
62 SEA L41 AND L42

L44 FILE 'HCAPLUS' ENTERED AT 11:58:12 ON 14 JUL 2011
40 SEA L43

L45 1 SEA L44 AND L31

L46 FILE 'LREGISTRY' ENTERED AT 11:58:44 ON 14 JUL 2011
STR

L47 STR

L48 STR L47

FILE 'REGISTRY' ENTERED AT 12:21:11 ON 14 JUL 2011
 L49 18 SEA SSS SAM L46 OR L48
 L50 SCR 2022
 L51 15 SEA SSS SAM (L46 OR L48) AND L50

FILE 'LREGISTRY' ENTERED AT 12:39:57 ON 14 JUL 2011
 L52 STR L48

FILE 'REGISTRY' ENTERED AT 12:40:45 ON 14 JUL 2011
 L53 SCR 1291 OR 2048
 L54 50 SEA SSS SAM (L46 OR L52) AND L53
 L55 1440 SEA SSS FUL (L46 OR L52) AND L53
 SAV L55 BOY597P/A

FILE 'HCAPLUS' ENTERED AT 12:48:30 ON 14 JUL 2011
 L56 4031 SEA L55
 L57 56 SEA L56 AND L31
 L58 45 SEA 1802-2006/PY,PRY,AY AND L57
 SEL L58 1-45 HIT RN

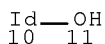
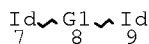
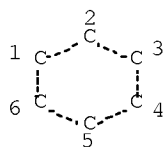
FILE 'REGISTRY' ENTERED AT 12:49:56 ON 14 JUL 2011
 L59 67 SEA (96-69-5/BI OR 57-13-6/BI OR 127148-27-0/BI OR 1502-99-4/BI
 OR 20415-10-5/BI OR 21458-21-9/BI OR 7566-50-9/BI OR 7580-92-9
 /BI OR 785-46-6/BI OR 857022-67-4/BI OR 96113-09-6/BI OR
 96589-56-9/BI OR 98423-29-1/BI OR 103350-59-0/BI OR 103622-32-8

FILE 'REGISTRY' ENTERED AT 12:54:56 ON 14 JUL 2011
 L60 920 SEA L55 AND 1/NC

FILE 'HCAPLUS' ENTERED AT 12:55:51 ON 14 JUL 2011
 L61 3692 SEA L60
 L62 51 SEA L61 AND L31
 L63 40 SEA 1802-2006/PY,PRY,AY AND L62
 L64 42 SEA L63 OR L32 OR L45
 L65 42 SEA 1802-2006/PY,PRY,AY AND L64
 L66 1 SEA L65 AND (L2 OR L3)
 L67 41 SEA L65 NOT L66
 L68 92760 SEA VULCANIZ? OR VULCANIS?
 L69 4 SEA L67 AND L68
 L70 37 SEA L67 NOT L69
 L71 579172 SEA RUBBER? OR TIRE OR TIRES OR TYRE OR TYRES
 L72 10 SEA L67 AND L71
 L73 10 SEA L72 OR L69
 L74 31 SEA L67 NOT L73
 SAV L74 BOY597XS/A

FILE 'REGISTRY' ENTERED AT 13:11:08 ON 14 JUL 2011

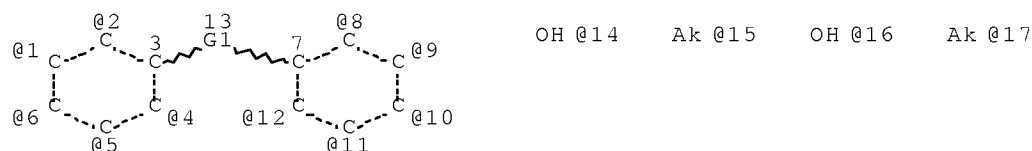
=> D QUE STAT L55
 L46 STR



REP G1=(1-20) S
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 13
DEFAULT MLEVEL IS ATOM
GGCAT IS SAT AT 13
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE
L52 STR



REP G1=(1-20) S
VPA 14-1/2/4/5/6 U
VPA 15-1/2/4/5/6 U
VPA 16-8/9/10/11/12 U
VPA 17-8/9/10/11/12 U
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 15
CONNECT IS E1 RC AT 17
DEFAULT MLEVEL IS ATOM
GGCAT IS SAT AT 15
GGCAT IS SAT AT 17
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE
L53 SCR 1291 OR 2048
L55 1440 SEA FILE=REGISTRY SSS FUL (L46 OR L52) AND L53

100.0% PROCESSED 1838381 ITERATIONS (42 INCOMPLETE) 1440 ANSWERS
SEARCH TIME: 00.00.08

=> FIL HCAP
FILE 'HCAPLUS' ENTERED AT 13:11:23 ON 14 JUL 2011
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=> D L66 1 IBIB ABS HITSTR HITIND RETABLE

L66 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 2005:346009 HCAPLUS Full-text
 DOCUMENT NUMBER: 142:375107
 TITLE: Vulcanization agent usable for EPDM-type rubber
 INVENTOR(S): Aubert, Thierry
 PATENT ASSIGNEE(S): Arkema, Fr.
 SOURCE: Fr. Demande, 16 pp.
 CODEN: FRXXBL
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2861082	A1	20050422	FR 2003-12022	20031015 <--
FR 2861082	B1	20051230		
CA 2542167	A1	20050428	CA 2004-2542167	20041007 <--
WO 2005037910	A1	20050428	WO 2004-FR2526	20041007 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1675898	A1	20060705	EP 2004-791479	20041007 <--
EP 1675898	B1	20070711		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1890313	A	20070103	CN 2004-80036813	20041007 <--
JP 2007508434	T	20070405	JP 2006-534782	20041007 <--
AT 366776	T	20070815	AT 2004-791479	20041007 <--
IN 2006DN01986	A	20070615	IN 2006-DN1986	20060412 <--
US 20070142567	A1	20070621	US 2006-575597	20060413 <--
KR 2007029634	A	20070314	KR 2006-7007320	20060415 <--
KR 964521	B1	20100621		
PRIORITY APPLN. INFO.:			FR 2003-12022	A 20031015 <--
			WO 2004-FR2526	W 20041007 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 142:375107

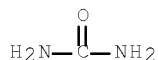
AB Vulcanization agent capable of donating sulfur comprises 10-90% poly(alkyl phenol)-polysulfides and 10-90% urea. Process of vulcanization of an EPDM-type elastomeric composition does not have a risk of forming nitrosamines when using this vulcanization agent.

IT 57-13-6, Urea, reactions 657402-40-9,
 Vultac TB 7

RL: RCT (Reactant); RACT (Reactant or reagent)
 (vulcanization agent usable for EPDM-type rubber)

RN 57-13-6 HCAPLUS

CN Urea (CA INDEX NAME)



RN 657402-40-9 HCAPLUS

CN Vultac TB 7 (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IPCI C08K0005-00 [ICM,7]; C08J0003-24 [ICS,7]; C08K0005-21 [ICS,7];

C08K0005-375 [ICS,7]; C08L0023-16 [ICS,7]

IPCR C08J0003-24 [I,A]; C08K0005-21 [I,A]; C08K0005-375 [I,A]

CC 39-10 (Synthetic Elastomers and Natural Rubber)

ST polyalkylphenol polysulfide urea vulcanization agent EPDM rubber

IT 57-13-6, Urea, reactions 657402-40-9,

Vultac TB 7

RL: RCT (Reactant); RACT (Reactant or reagent)

(vulcanization agent usable for EPDM-type rubber)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Fuerstenwalde Reifen Ve	1987			DD 247016 A	HCAPLUS
Graf, H	1993	46	486	KAUTSCHUK GUMMI KUNS	HCAPLUS
Laffitte, J	2003	816	48	CAOUTCHOUCS AND PLAS	HCAPLUS
Rowland, D	1994			US 5326828 A	HCAPLUS

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

=> D L73 1-10 IBIB ABS HITSTR HITIND RETABLE

L73 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2005:141200 HCAPLUS Full-text

DOCUMENT NUMBER: 142:254568

TITLE: Methods and compositions for increasing the efficacy of biologically-active ingredients such as antitumor agents

INVENTOR(S): Windsor, J. Brian; Roux, Stan J.; Lloyd, Alan M.; Thomas, Collin E.

PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA

SOURCE: PCT Int. Appl., 243 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005014777	A2	20050217	WO 2003-US32667	20031016 <--
WO 2005014777	A3	20050915		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

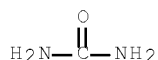
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
 GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
 LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
 OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
 TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 CA 2502148 A1 20050217 CA 2003-2502148 20031016 <--
 AU 2003304398 A1 20050225 AU 2003-304398 20031016 <--
 EP 1576150 A2 20050921 EP 2003-816736 20031016 <--
 EP 1576150 A3 20051102
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
 US 20060276339 A1 20061207 US 2006-531744 20060123 <--
 PRIORITY APPLN. INFO.: US 2002-418803P P 20021016 <--
 WO 2003-US32667 W 20031016 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

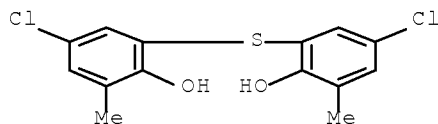
AB The invention provides methods and compns. for modulating the sensitivity of cells to cytotoxic compds. and other active agents. In accordance with the invention, compns. are provided comprising combinations of ectophosphatase inhibitors and active agents. Active agents include antibiotics, fungicides, herbicides, insecticides, chemotherapeutic agents, and plant growth regulators. By increasing the efficacy of active agents, the invention allows use of compns. with lowered concns. of active ingredients.

IT ~~57-13-6~~, Urea, biological studies ~~4418-66-0~~
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (methods and compns. for increasing efficacy of biol. active ingredients such as antitumor agents)

RN 57-13-6 HCAPLUS
 CN Urea (CA INDEX NAME)



RN 4418-66-0 HCAPLUS
 CN Phenol, 2,2'-thiobis[4-chloro-6-methyl- (CA INDEX NAME)



IPCI C12N [ICM,7]

IPCR A01N0025-00 [I,A]; A01N0037-00 [I,A]; A01N0037-10 [I,A]; A01N0037-18 [I,A]; A01N0037-22 [I,A]; A01N0037-28 [I,A]; A01N0037-30 [I,A];

A01N0037-38 [I,A]; A01N0037-46 [I,A]; A01N0041-06 [I,A]; A01N0043-12 [I,A]; A01N0043-16 [I,A]; A01N0043-38 [I,A]; A01N0043-40 [I,A]; A01N0043-78 [I,A]; A01N0047-06 [I,A]; A01N0047-30 [I,A]; A01N0047-34 [I,A]; A01N0047-44 [I,A]; A01N0057-16 [I,A]; A01N0061-00 [I,A]; A01N0063-00 [I,A]; A61K0045-06 [I,A]; A61K0045-08 [I,A]; A61K0047-46 [I,A]; A61P0035-00 [I,A]; C12N [I,S]; C12N0015-00 [I,A]

CC 1-6 (Pharmacology)

IT Amino acids, biological studies
Aminoglycosides
Androgens
Asbestos
Asphalt
Bentonite, biological studies
Canola oil
Carbon black, biological studies
Caseins, biological studies
Castor oil
Chlorinated natural ~~rubber~~
Coal tar
Coconut oil
Cod liver oil
Collagens, biological studies
Corn oil
Corticosteroids, biological studies
Cottonseed oil
Creosote oil
Cytokinins
Diatomite
Epoxy resins, biological studies
Essential oils
Feldspar-group minerals
Fertilizers
Gasoline
Gelatins, biological studies
Gibberellins
Glycopeptides
Granite, biological studies
Growth regulators, plant
Humic acids
Jojoba oil
Kaolin, biological studies
Kerosene
Lard
Ligroine
Lime (chemical)
Linseed oil
Macrolides
Mica-group minerals, biological studies
Naphthenic acids, biological studies
Naphthenic oils
Natural products, pharmaceutical
Nitrile ~~rubber~~, biological studies
Olive oil
Palm oil
Paraffin oils
Paraffin waxes, biological studies
Peanut oil

Perlite
 Petrolatum
 Petroleum hydrocarbons
 Petroleum resins
 Petroleum spirits
 Phenols, biological studies
 Phosphoproteins
 Plastics, biological studies
 Polyamide fibers, biological studies
 Polyamides, biological studies
 Polyenes
 Polyoxyalkylenes, biological studies
 Polyvinyl butyrals
 Progestogens
 Protein hydrolyzates
 Pumice
 Pyrethrins
 Rape oil
 Resins
 Rosin
 Rubber, biological studies
 Safflower oil
 Sand
 Saponins
 Shale
 Shellac
 Silica gel, biological studies
 Soapstone
 Soybean oil
 Tall oil
 Tallow
 Tetracyclines
 Tung oil
 Turpentine
 Waxes
 Wood tar
 Zeins

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)

(methods and compns. for increasing efficacy of biol. active
 ingredients such as antitumor agents)

IT 50-00-0, Formaldehyde, biological studies 50-07-7 50-18-0 50-29-3,
 biological studies 50-44-2 50-70-4, D-Glucitol, biological studies
 50-76-0, Actinomycin D 50-79-3 50-91-9 50-99-7, D-Glucose,
 biological studies 51-21-8 51-28-5, biological studies 51-36-5
 52-24-4 52-68-6 52-85-7 52-90-4, L-Cysteine, biological studies
 53-03-2 53-19-0 53-41-8 54-11-5 54-64-8 55-38-9 55-68-5
 55-98-1 56-23-5, biological studies 56-35-9 56-36-0 56-38-2
 56-53-1 56-72-4 56-75-7 57-06-7 57-09-0 ~~57-13-6~~,
 Urea, biological studies 57-22-7 57-48-7, D-Fructose,
 biological studies 57-50-1, biological studies 57-63-6 57-85-2
 58-27-5 58-36-6 58-89-9 59-05-2 59-30-3D, analogs, biological
 studies 59-50-7 59-87-0 60-00-4, biological studies 60-12-8,
 Benzeneethanol 60-51-5 60-57-1 61-73-4 62-38-4 62-53-3,
 Benzenamine, biological studies 62-73-7 62-76-0 63-25-2 63-42-3
 64-00-6 64-02-8 64-17-5, Ethanol, biological studies 65-30-5
 66-25-1, Hexanal 66-81-9 67-48-1 67-56-1, Methanol, biological

studies 67-63-0, 2-Propanol, biological studies 67-64-1, 2-Propanone, biological studies 67-66-3, biological studies 67-68-5, biological studies 67-72-1 69-72-7, biological studies 70-30-4 70-38-2 70-43-9 71-23-8, 1-Propanol, biological studies 71-36-3, 1-Butanol, biological studies 71-55-6 71-58-9 71-63-6 72-20-8 72-43-5 72-54-8 72-55-9, biological studies 74-82-8D, Methane, triaryl derivs. 74-83-9, biological studies 74-85-1, Ethene, biological studies 74-87-3, biological studies 74-88-4, biological studies 74-90-8, Hydrocyanic acid, biological studies 74-96-4 74-98-6, Propane, biological studies 75-00-3 75-05-8, Acetonitrile, biological studies 75-07-0, Acetaldehyde, biological studies 75-08-1, Ethanethiol 75-09-2, biological studies 75-15-0, Carbon disulfide, biological studies 75-20-7, Calcium carbide (Ca(C2)) 75-21-8, Oxirane, biological studies 75-28-5 75-31-0, 2-Propanamine, biological studies 75-35-4, biological studies 75-37-6 75-43-4 75-45-6 75-52-5, biological studies 75-56-9, biological studies 75-60-5 75-68-3 75-69-4 75-71-8 75-73-0 76-01-7 76-13-1 76-22-2 76-43-7 76-44-8 76-73-3 76-87-9 77-47-4 77-48-5 77-73-6 77-92-9D, copper complexes 77-98-5 78-21-7 78-34-2 78-40-0 78-48-8 78-53-5 78-57-9 78-70-6 78-78-4 78-83-1, biological studies 78-87-5 78-90-0D, 1,2-Propanediamine, 1-alkyl derivs., salts 78-92-2, 2-Butanol 78-93-3, 2-Butanone, biological studies 79-00-5 79-01-6, biological studies 79-08-3 79-09-4, Propanoic acid, biological studies 79-10-7, 2-Propenoic acid, biological studies 79-11-8, biological studies 79-21-0, Ethaneperoxoic acid 79-24-3 79-31-2 79-43-6, biological studies 79-46-9 80-05-7, biological studies 80-13-7 80-33-1 80-46-6 80-56-8 80-57-9 80-62-6 80-71-7 81-81-2 81-82-3 81-84-5, 1H,3H-Naphtho[1,8-cd]pyran-1,3-dione 81-88-9 82-66-6 82-68-8 83-26-1 83-28-3 83-79-4 84-62-8 84-66-2 84-74-2 85-00-7 85-34-7 85-68-7 85-86-9 85-97-2 86-50-0 86-85-1 86-86-2, 1-Naphthaleneacetamide 86-87-3, 1-Naphthaleneacetic acid 87-17-2 87-41-2, 1(3H)-Isobenzofuranone 87-44-5 87-47-8 87-51-4, 1H-Indole-3-acetic acid, biological studies 87-86-5 87-90-1 88-04-0 88-06-2 88-85-7 89-68-9 89-83-8 90-03-9 90-43-7, [1,1'-Biphenyl]-2-ol 91-44-1 91-64-5, 2H-1-Benzopyran-2-one 92-04-6 93-71-0 93-76-5 93-76-5D, alkylamine salts 93-78-7 93-79-8 93-80-1 94-13-3 94-26-8 94-43-9 94-59-7 94-62-2 94-75-7, biological studies 94-75-7D, alkylamine and alkanolamine salts 94-80-4 95-06-7 95-14-7, 1H-Benzotriazole 95-48-7, biological studies 95-50-1 95-57-8 95-95-4 96-12-8 96-29-7 97-11-0 97-17-6 97-18-7 97-23-4 97-24-5 97-53-0 97-63-2 97-80-3 97-95-0 97-99-4 98-01-1, 2-Furancarboxaldehyde, biological studies 98-09-9, Benzenesulfonyl chloride 98-11-3D, Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts 98-11-3D, Benzenesulfonic acid, alkyl derivs., potassium salts 98-11-3D, Benzenesulfonic acid, para-C9-13 alkyl derivs., sodium salts 98-50-0 98-54-4 98-82-8

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(methods and compns. for increasing efficacy of biol. active ingredients such as antitumor agents)

IT	2703-13-1	2759-71-9	2764-72-9	2778-04-3	2782-57-2	2782-70-9
	2797-51-5	2809-21-4	2813-95-8	2875-41-4D, N-alkyl derivs.		
	2893-78-9	2905-69-3	2917-32-0	2921-88-2	2934-07-8	2939-80-2
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	3004-70-4	3032-40-4	3049-71-6	3050-27-9	3060-89-7	3097-08-3
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 3689-24-5 3691-35-8 3724-65-0D, 2-Butenoic acid, esters 3734-49-4
 3734-95-0 3734-97-2 3735-23-7 3735-33-9 3737-22-2 3740-92-9
 3766-60-7 3766-81-2 3768-14-7 3772-94-9 3778-73-2 3792-59-4
 3811-04-9 3811-49-2 3844-45-9 3861-41-4 3861-47-0 3878-19-1
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 5335-24-0 5375-87-1 5386-57-2 5386-68-5 5386-77-6 5406-97-3
 5468-43-9 5471-51-2 5538-94-3 5598-13-0 5598-15-2 5598-52-7
 5716-15-4 5722-59-8 5723-62-6 5736-15-2 5742-19-8 5787-50-8
 5822-97-9 5823-13-2 5826-76-6 5827-05-4 5834-96-8 5836-29-3
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 6834-92-0 6915-15-7 6923-22-4 6988-21-2 6998-60-3, Rifamycin
 7076-63-3 7097-60-1 7110-49-8D, nickel complexes 7122-04-5
 7159-99-1 7166-19-0 7173-51-5 7206-15-7 7206-27-1 7212-44-4
 7257-41-2 7281-04-1 7286-69-3 7286-84-2 7287-19-6 7287-36-7
 7292-16-2 7313-54-4 7320-34-5 7345-69-9 7350-09-6 7359-55-9
 7379-26-2 7379-27-3 7411-47-4 7421-93-4 7429-90-5, Aluminum,
 biological studies 7437-35-6 7439-89-6, Iron, biological studies
 7439-92-1, Lead, biological studies 7439-97-6, Mercury, biological
 studies 7439-98-7, Molybdenum, biological studies 7440-02-0, Nickel,
 biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)

(methods and compns. for increasing efficacy of biol. active
 ingredients such as antitumor agents)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon				US 20020077365 A1	HCAPLUS
Anon				US 20020103082 A1	HCAPLUS
Anon				US 4737521 A	HCAPLUS

OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD
 (9 CITINGS)

L73 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 2000:198157 HCAPLUS Full-text
 DOCUMENT NUMBER: 132:238097
 TITLE: High-attenuation polymeric material compositions
 INVENTOR(S): Nomura, Takeshi; Hashimoto, Kazunobu; Wu, Chi Fei;

PATENT ASSIGNEE(S): Mihara, Toshiyuki
 SOURCE: Tokai Rubber Industries, Ltd., Japan
 Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 8
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000086900	A	20000328	JP 1998-253797	19980908 <--
JP 3661180	B2	20050615		
US 6265475	B1	20010724	US 1999-363749	19990730 <--
PRIORITY APPLN. INFO.:			JP 1998-215406	A 19980730 <--
			JP 1998-217364	A 19980731 <--
			JP 1998-217398	A 19980731 <--
			JP 1998-219998	A 19980804 <--
			JP 1998-220015	A 19980804 <--
			JP 1998-253797	A 19980908 <--
			JP 1998-349201	A 19981208 <--
			JP 1998-349202	A 19981208 <--

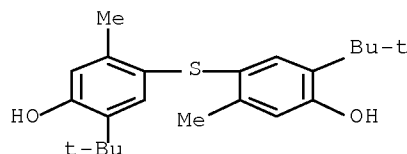
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The title compns. contain base polymers having acidic or basic polar side chains, agents imparting attenuation, namely hindered phenols, and compatibilizers therefor. Thus, a sheet contained Nipol AR 51 100, ADK Stab AO 40 40, and Hitanol 10 parts.

IT 96-69-5
 RL: MOA (Modifier or additive use); USES (Uses)
 (vibration dampers containing polymers and hindered phenols and compatibilizers)

RN 96-69-5 HCAPLUS

CN Phenol, 4,4'-thiobis[2-(1,1-dimethylethyl)-5-methyl- (CA INDEX NAME)]



IPCI C08L0101-00 [ICM,7]; C08K0005-13 [ICS,7]; C08K0005-47 [ICS,7];
 C08K0005-524 [ICS,7]; F16F0015-08 [ICS,7]

IPCR C08K0005-13 [I,A]; C08K0005-47 [I,A]; C08K0005-524 [I,A]; C08L0057-00 [I,A]; C08L0101-00 [I,A]; F16F0015-08 [I,A]

CC 38-3 (Plastics Fabrication and Uses)

ST vibration damper ~~rubber~~ hindered phenol compatibilizer; acrylic
~~rubber~~ vibration damper

IT Chlorinated polyethylene ~~rubber~~

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
 engineered material use); USES (Uses)

(Elaslene 401A; vibration dampers containing polymers and hindered phenols
 and compatibilizers)

IT Nitrile ~~rubber~~, uses

- RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(Nipol DN 005; vibration dampers containing polymers and hindered phenols and compatibilizers)
- IT Synthetic rubber, uses
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(acrylic-epoxy, Nipol AR 51; vibration dampers containing polymers and hindered phenols and compatibilizers)
- IT Butyl rubber, uses
Synthetic rubber, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(vibration dampers containing polymers and hindered phenols and compatibilizers)
- IT 9010-85-9
RL: TEM (Technical or engineered material use); USES (Uses)
(butyl rubber, vibration dampers containing polymers and hindered phenols and compatibilizers)
- IT 9002-88-4D, chlorinated
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(chlorinated polyethylene rubber, Elaslene 401A; vibration dampers containing polymers and hindered phenols and compatibilizers)
- IT 110-16-7D, Maleic acid, polymers 9003-08-1, Melamine resin 9011-05-6, Urea resin 25086-73-1 65931-66-0, Quintone 1500
RL: MOA (Modifier or additive use); USES (Uses)
(compatibilizers; vibration dampers containing polymers and hindered phenols and compatibilizers)
- IT 9003-18-3
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(nitrile rubber, Nipol DN 005; vibration dampers containing polymers and hindered phenols and compatibilizers)
- IT 24937-78-8, Eva polymer 25038-32-8, Isoprene-styrene copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(rubber; vibration dampers containing polymers and hindered phenols and compatibilizers)
- IT 77-73-6D, Dicyclopentadiene, polymers 79-74-3 88-24-4 88-58-4
~~96-69-5~~ 119-47-1 1709-70-2 1843-03-4 23911-80-0
27676-62-6 31014-41-2 35074-77-2 36443-68-2 41484-35-9
73754-27-5
RL: MOA (Modifier or additive use); USES (Uses)
(vibration dampers containing polymers and hindered phenols and compatibilizers)

L73 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2011 ACS on STN
ACCESSION NUMBER: 1998:674859 HCAPLUS Full-text
DOCUMENT NUMBER: 129:344050
ORIGINAL REFERENCE NO.: 129:70079a,70082a
TITLE: Heat- and moisture-resistant epoxy resin compositions
for prepregs and printed circuit boards
INVENTOR(S): Arata, Michitoshi; Sase, Shigeo; Takano, Mareo;
Fukuda, Tomio
PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10279778	A	19981020	JP 1997-88016	19970407 <--
US 6180250	B1	20010130	US 1997-994967	19971219 <--
EP 870805	A2	19981014	EP 1997-250378	19971220 <--
EP 870805	A3	20000209		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.: JP 1997-88016 A 19970407 <--

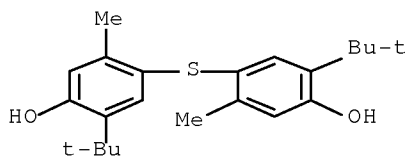
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The title compns. comprise (a) epoxy resins derived by glycidyl etherating condensates of phenols and hydroxybenzaldehyde, (b) bisphenol A-formaldehyde copolymer, (c) fireproofing agents (e.g., tetrabromobisphenol A), (d) curing accelerators (e.g., 1-cyanoethyl-2-ethyl-4-methylimidazole), (e) phenolic or organic thio compound antioxidants [e.g., hindered phenols, butylated hydroxyanisole, 2,6-di-tert-butyl-4-ethylphenol, 4,4'-butylidenebis(3-methyl-6-tert-butylphenol), dilaurylthio dipropionate, distearylthio dipropionate], and (f) urea derivs. (e.g., urea, γ -carbamypropyltriethoxysilane).

IT 96-69-5, 4,4'-Thiobis(3-methyl-6-tert-butylphenol)
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (antioxidants; heat- and moisture-resistant epoxy resin compns. for prepreps and printed circuit boards)

RN 96-69-5 HCAPLUS

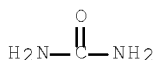
CN Phenol, 4,4'-thiobis[2-(1,1-dimethylethyl)-5-methyl- (CA INDEX NAME)



IT 57-13-6, Urea, uses
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (heat- and moisture-resistant epoxy resin compns. for prepreps and printed circuit boards)

RN 57-13-6 HCAPLUS

CN Urea (CA INDEX NAME)



IPCI C08L0063-00 [ICM,6]; B32B0015-08 [ICS,6]; C08G0059-08 [ICS,6]; C08J0005-24 [ICS,6]; H05K0001-03 [ICS,6]
IPCR C08J0005-24 [I,A]; B32B0015-08 [I,A]; C08G0059-08 [I,A]; C08G0059-32 [I,A]; C08K0005-00 [I,A]; C08L0063-00 [I,A]; C08L0063-04 [I,A]; H01L0023-14 [I,A]; H05K0001-03 [I,A]
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 76
ST heat resistant epoxy resin prepreg; moisture resistant epoxy resin prepreg; printed circuit board epoxy compn; fireproofing agent tetrabromobisphenol epoxy compn; curing accelerator imidazole epoxy compn; hindered phenol antioxidant epoxy compn; org thio compd antioxidant epoxy compn; urea deriv epoxy compn prepreg
IT Molding of plastics and rubbers
(compression; heat- and moisture-resistant epoxy resin compns. for prepreps and printed circuit boards)
IT 85-60-9, 4,4'-Butylidenebis(3-methyl-6-tert-butylphenol) 87-66-1, Pyrogallol ~~96-69-5~~, 4,4'-Thiobis(3-methyl-6-tert-butylphenol) 119-47-1, 2,2'-Methylene-bis(4-methyl-6-tert-butylphenol) 123-28-4, Dilaurylthio dipropionate 693-36-7, Distearylthio dipropionate 1709-70-2, 1,3,5-Trimethyl-2,4,6-tris(3,5-di-tert-butyl-4-hydroxybenzyl)benzene 1843-03-4 4130-42-1, 2,6-Di-tert-butyl-4-ethylphenol 6683-19-8 26638-03-9D, Hydroxyanisole, butylated
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(antioxidants; heat- and moisture-resistant epoxy resin compns. for prepreps and printed circuit boards)
IT ~~57-13-6~~, Urea, uses 25085-75-0, Bisphenol A-formaldehyde copolymer 111965-56-1
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(heat- and moisture-resistant epoxy resin compns. for prepreps and printed circuit boards)
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L73 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2011 ACS on STN
ACCESSION NUMBER: 1993:474544 HCAPLUS Full-text
DOCUMENT NUMBER: 119:74544
ORIGINAL REFERENCE NO.: 119:13421a,13424a
TITLE: Manufacture of high-strength vinyl alcohol polymer fibers with excellent thermal aging resistance
INVENTOR(S): Sano, Hirofumi; Yoshimochi, Toshimi; Sato, Masahiro; Sano, Tomoyuki
PATENT ASSIGNEE(S): Kuraray Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 04343708	A	19921130	JP 1991-139833	19910514 <--
PRIORITY APPLN. INFO.:			JP 1991-139833	19910514 <--

AB In manufacture of title fibers, useful for ~~rubber~~ reinforcements, etc., by dissolving vinyl alc. polymers with viscosity-average d.p. (DPv) ≥ 3000 in solvents, spinning them from nozzles to obtain yarns, and drawing the yarns to total draw ratio (containing dry-heat drawing process) ≥ 16 , (A) decomposition inhibitors are added or adsorbed to the inhibitor content 0.001-3.0% in the spinning yarns in the processes from dissolving the polymers to extracting the solvents from the yarns and (B) surfactants containing amide or ~~urea~~ linkage-containing ammonium compds. or sulfonates and/or amine sulfonates are attached on the yarns to the surfactant content 0.05-5% in the processes from just before drying process of the extracted solvents to just before dry-heat drawing process. Thus, a DMF solution containing 7% poly(vinyl alc.) (DPv 7000) was spun into 7:3 MeOH-DMF at 5°, wet-drawn to draw ratio 4, extracted with MeOH, blended with 0.7% 4',4'-thiobis(6-tert-butyl-3-methylphenol) (I), treated with 0.5% stearylamidopropyl dimethyl- β -hydroxyethylammonium nitrate (II) and 3% sorbitan monostearate, and dried at 80° to give a fiber (I content 1.1%, II content 0.45%), which was dry-heat drawn at 180-243° to total draw ratio 20.1 to show strength 19.2 g/denier and its retention 81% after 24 h at 160° and 68% after 48 h at 160° and elastic modulus 455 g/denier.

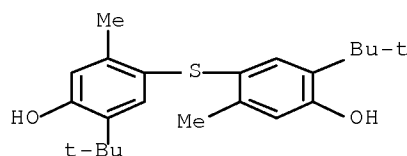
IT ~~96-69-5~~

RL: USES (Uses)

(antioxidants, vinal fibers containing, for good thermal aging resistance)

RN 96-69-5 HCAPLUS

CN Phenol, 4,4'-thiobis[2-(1,1-dimethylethyl)-5-methyl- (CA INDEX NAME)



IPCI D01F0006-14 [ICM,5]; D02J0001-22 [ICS,5]; D02G0003-48 [ICA,5]

IPCR D01F0006-14 [I,A]; D02G0003-48 [I,A]; D02J0001-22 [I,A]

CC 40-7 (Textiles and Fibers)

ST vinyl alc polymer fiber strength; polyvinyl alc fiber heat resistance; amide surfactant blend vinal fiber; ~~urea~~ surfactant blend vinal fiber; decompn inhibitor blend vinal fiber; sulfonate surfactant blend vinal fiber

IT ~~96-69-5~~ 123-28-4, Dilauryl thiodipropionate 23128-74-7

RL: USES (Uses)

(antioxidants, vinal fibers containing, for good thermal aging resistance)

L73 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1993:193021 HCAPLUS Full-text

DOCUMENT NUMBER: 118:193021

ORIGINAL REFERENCE NO.: 118:33165a,33168a

TITLE: 4,4'-Biphenylenediphosphonite compound and its use as an antioxidant

INVENTOR(S): Akashi, Hiroyuki; Inoue, Takeshi; Ike, Tetsuji; Hidaka, Yasuhiro; Horie, Shoichi

PATENT ASSIGNEE(S): Yoshitomi Pharmaceutical Industries, Ltd., Japan

SOURCE: Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 516006	A1	19921202	EP 1992-108727	19920523 <--
EP 516006	B1	19961023		
R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
JP 05178870	A	19930720	JP 1992-155682	19920522 <--
JP 2522136	B2	19960807		
US 5300257	A	19940405	US 1992-888925	19920527 <--
KR 148022	B1	19980817	KR 1992-9060	19920527 <--
PRIORITY APPLN. INFO.:			JP 1991-152618	A 19910527 <--
			JP 1991-277309	A 19910927 <--

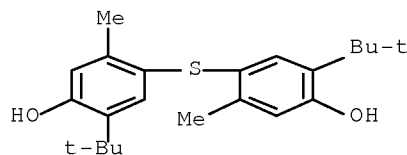
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Tetrakis(2,4-di-tert-butyl-5-methylphenyl) 4,4'-biphenylenediphosphonite is resistant to hydrolysis and is useful, especially in combination with other antioxidants, as an antioxidant for organic materials such as polymers.

IT ~~96-69-5~~, 4,4'-Thiobis(6-tert-butyl-m-cresol)
 RL: USES (Uses)
 (antioxidant, biphenylenediphosphonite ester for use with)

RN 96-69-5 HCAPLUS

CN Phenol, 4,4'-thiobis[2-(1,1-dimethylethyl)-5-methyl- (CA INDEX NAME)]



IPCI C07F0009-48 [ICM,5]; C08K0005-5393 [ICS,5]

IPCR C07F0009-48 [I,A]; C08K0005-5393 [I,A]

CC 37-6 (Plastics Manufacture and Processing)

IT Acrylic polymers, miscellaneous

Epoxy resins, miscellaneous

Petroleum resins

Polyamides, miscellaneous

Polycarbonates, miscellaneous

Polyesters, miscellaneous

Polyimides, miscellaneous

Polyoxymethylenes, miscellaneous

Polyoxyphenylenes

Polysulfones, miscellaneous

Polythiophenylenes

Rubber, natural, miscellaneous

Rubber, synthetic

Siloxanes and Silicones, miscellaneous

Urethane polymers, miscellaneous

RL: MSC (Miscellaneous)

(antioxidant for, biphenylenediphosphonite ester as)

IT 9002-86-2, Poly(vinyl chloride) 9002-88-4, Polyethylene 9002-89-5,

Poly(vinylalcohol) 9003-07-0, Polypropylene 9003-08-1,
 Formaldehyde-melamine copolymer 9003-20-7, Poly(vinylacetate)
 9003-35-4, Formaldehyde-phenol copolymer 9003-53-6, Polystyrene
 9003-56-9, ABS polymer 9004-34-6, Cellulose, uses 9011-05-6,
 Formaldehyde-urea copolymer 24968-12-5,
 1,4-Butanediol-terephthalic acid copolymer, sru 25014-41-9,
 Polyacrylonitrile 25038-59-9, uses 26062-94-2,
 1,4-Butanediol-terephthalic acid copolymer
 RL: USES (Uses)

(antioxidant for, biphenylenediphosphonite ester as)
 IT 77-62-3 85-60-9 88-24-4 88-26-6 ~~96-69-5~~,
 4,4'-Thiobis(6-tert-butyl-m-cresol) 118-82-1,
 4,4'-Methylenebis(2,6-di-tert-butylphenol) 119-47-1 121-79-9, Propyl
 gallate 128-37-0, 2,6-Di-tert-butyl-4-methylphenol, uses 991-84-4
 1034-01-1, Octyl gallate 1166-52-5, Dodecyl gallate 1709-70-2
 1843-03-4 4066-02-8 4130-42-1, 2,6-Di-tert-butyl-4-ethylphenol
 6683-19-8 23128-74-7 25013-16-5, Butylated hydroxyanisole 27676-62-6
 35074-77-2 36443-68-2 40601-76-1 57569-40-1 65140-91-2
 70331-94-1 90498-90-1 90499-18-6 147192-63-0
 RL: USES (Uses)

(antioxidant, biphenylenediphosphonite ester for use with)

OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD
 (17 CITINGS)

L73 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1988:168981 HCAPLUS Full-text

DOCUMENT NUMBER: 108:168981

ORIGINAL REFERENCE NO.: 108:27783a,27786a

TITLE: ~~Rubber~~ compositions containing
 imidazol(in)es and Broensted acids

INVENTOR(S): Hirata, Yasushi; Hatakeyama, Kazuya; Kondo, Hitoshi

PATENT ASSIGNEE(S): Bridgestone Corp., Japan

SOURCE: Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
EP 251760	A2	19880107	EP 1987-305773	19870630 <--
EP 251760	A3	19880601		
EP 251760	B1	19940126		
R: DE, FR, GB				
JP 63010645	A	19880118	JP 1986-152613	19860701 <--
JP 07086155	B	19950920		
JP 63068647	A	19880328	JP 1986-210777	19860909 <--
JP 63139931	A	19880611	JP 1986-286771	19861203 <--
JP 07064955	B	19950712		
US 5140055	A	19920818	US 1991-727395	19910705 <--
PRIORITY APPLN. INFO.:			JP 1986-152613	A 19860701 <--
			JP 1986-210777	A 19860909 <--
			JP 1986-286771	A 19861203 <--
			JP 1986-39088	A1 19860226 <--
			US 1987-66439	B1 19870626 <--
			US 1988-229775	B1 19880805 <--

OTHER SOURCE(S): MARPAT 108:168981

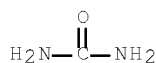
AB A ~~rubber~~ composition, useful for vibration dampers and ~~tire~~ treads, having high mech. $\tan \delta$ at high temperature, comprises natural and/or synthetic ~~rubber~~ and 0.1-50 phr of a (benz)imidazol(in)e derivative The use of 0.1-50 phr Broensted acid in addition improves the poor scorch resistance of the ~~rubber~~ composition containing these compds. alone, and enhances the grip of the ~~tire~~ tread at high speeds. SBR 100, aromatic oil 37.5, ISAF carbon black 65, and ZnO 3 parts were compounded with 0.01 mol 2-phenyl-4-methylimidazole (I) and appropriate amts. of 1,3-diphenylguanidine, 2-mercaptobenzothiazole, and S and ~~vulcanized~~ to give a ~~vulcanizate~~ showing $\tan \delta$ at 80° under 1% dynamic strain 0.238, compared with 0.173 for a similar ~~vulcanizate~~ without I. Addition of 0.01 mol p-toluenesulfonic acid (II) to a similar ~~rubber~~ composition containing 0.01 mol 1-stearyl-2-undecylimidazole gave a composition showing Mooney scorch time at 130° (JIS K 6300) 15.1 min, compared with 6.6 min for a similar composition without II.

IT 57-13-6, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with phenylenediamine)

RN 57-13-6 HCAPLUS

CN Urea (CA INDEX NAME)

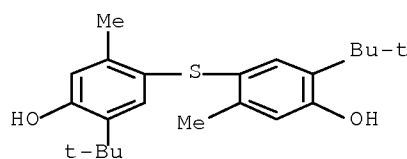


IT 96-69-5, 4,4'-Thiobis(3-methyl-6-tert-butylphenol)

RL: USES (Uses)
(~~rubber~~ compns. containing, for improved scorch time in presence of imidazoles)

RN 96-69-5 HCAPLUS

CN Phenol, 4,4'-thiobis[2-(1,1-dimethylethyl)-5-methyl- (CA INDEX NAME)



IPCI C08K0005-34 [ICM,4]; B60C0001-00 [ICS,4]; C08L0021-00 [ICS,4]

IPCR B60C0001-00 [I,A]; C08K0005-3445 [I,A]; C08K0005-3492 [I,A]

CC 39-9 (Synthetic Elastomers and Natural Rubber)

ST imidazole deriv ~~rubber~~ mech loss; imidazoline deriv ~~rubber~~ mech loss; benzimidazole deriv ~~rubber~~ mech loss; SBR ~~tire~~ tread grip imidazole deriv; Broensted acid ~~rubber~~ scorch resistance; phenylmethylimidazole ~~rubber~~ mech loss; toluenesulfonic acid ~~rubber~~ scorch resistance

IT ~~Rubber~~, butadiene-styrene, uses and miscellaneous

RL: USES (Uses)
(compounding of, with (benz)imidazole derivs., for improved mech. loss at elevated temperature)

- IT Carboxylic acids, uses and miscellaneous
RL: USES (Uses)
(~~rubber~~ compns. containing, for improved scorch time in presence of imidazoles)
- IT Resin acids and Rosin acids
RL: USES (Uses)
(~~rubber~~ compns. containing, for improved scorch time in presenece of imidazoles)
- IT Acids, uses and miscellaneous
RL: USES (Uses)
(Broensted, ~~rubber~~ compns. containing, for improved scorch time in presence of imidazoles)
- IT Vibration
(dampers, ~~rubber~~ compns., containing (benz)imidazole derivs., with improved mech. loss at elevated temperature)
- IT ~~Tires~~
(treads, SBR, containing (benz)imidazole derivs. and Broensted acids, with improved grip and mech. loss at elevated temperature)
- IT 57-11-4, reactions ~~57-13-6~~, reactions 104-88-1, reactions 1200-14-2 5416-30-8 24083-13-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with phenylenediamine)
- IT 615-16-7P 1019-85-8P 2963-65-7P 5805-27-6P,
2-Heptadecylbenzimidazole 14313-45-2P 21578-58-5P 114136-99-1P,
2-(p-Butylphenyl)benzimidazole 114137-00-7P,
2-[p-(Octyloxy)phenyl]benzimidazole
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation and use in ~~rubber~~ compns., for improved mech. loss at elevated temperature)
- IT 51-17-2, Benzimidazole 60-56-0 94-52-0 104-98-3 443-48-1
570-22-9 582-60-5 615-15-6 670-96-2 693-98-1 716-79-0 822-36-6
827-43-0 931-36-2 936-49-2 1137-68-4 2034-22-2 2232-08-8
2466-76-4 3584-66-5 4414-88-4 4857-04-9 5418-95-1 5805-76-5
10041-02-8 13682-32-1 13750-62-4 16731-68-3 18156-74-6
21054-72-8 23328-87-2 23996-12-5 23996-16-9 23996-55-6
24370-25-0 31430-18-9 38668-46-1 49556-76-5 50729-75-4
50729-78-7 61698-32-6 63592-54-1 68083-35-2 85598-94-3
113946-81-9 114136-96-8 114136-97-9 114136-98-0 114137-01-8
RL: MOA (Modifier or additive use); USES (Uses)
(~~rubber~~ compns. containing, for improved mech. loss at elevated temperature)
- IT 62-23-7, p-Nitrobenzoic acid 64-19-7, uses and miscellaneous 65-85-0,
uses and miscellaneous 74-11-3, p-Chlorobenzoic acid 85-60-9,
4,4'-Butylidenebis(3-methyl-6-tert-butylphenol) 86-55-5,
 α -Naphthylcarboxylic acid 88-99-3, uses and miscellaneous
89-05-4, Pyromellitic acid ~~96-69-5~~,
4,4'-Thiobis(3-methyl-6-tert-butylphenol) 100-09-4, p-Methoxybenzoic
acid 104-15-4, uses and miscellaneous 110-15-6, uses and miscellaneous
110-16-7, uses and miscellaneous 298-07-7 528-44-9 621-82-9,
Cinnamic acid, uses and miscellaneous 724-59-4 7664-38-2, uses and
miscellaneous 7664-93-9, uses and miscellaneous 13598-36-2
RL: USES (Uses)
(~~rubber~~ compns. containing, for improved scorch time in presence of imidazoles)
- IT 9003-55-8
RL: USES (Uses)
(~~rubber~~, compounding of, with (benz)imidazole derivs., for

improved mech. loss at elevated temperature)
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD
(3 CITINGS)

L73 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2011 ACS on STN
ACCESSION NUMBER: 1978:154086 HCAPLUS Full-text
DOCUMENT NUMBER: 88:154086
ORIGINAL REFERENCE NO.: 88:24281a,24284a
TITLE: Adhesion of polyamide fibers to ~~rubber~~
INVENTOR(S): Nakamura, Takayoshi; Hirohata, Mikio; Zako, Kanzaburo;
Yura, Takashi
PATENT ASSIGNEE(S): Sumitomo Naugatuck Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 52152982	A	19771219	JP 1976-71585	19760616 <--
JP 54000952	B	19790118		

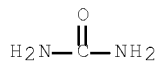
PRIORITY APPLN. INFO.: JP 1976-71585 A 19760616 <--

AB Heat-resistant polyamide cords, with improved adhesion to ~~rubber~~, were prepared by blending an iodide of an alkali or alkaline earth metal, ~~urea~~ [57-13-6], and an antioxidant with HCHO-resorcinol copolymer [24969-11-7] and treating the cords with the mixture. Thus, 11 parts resorcinol was polymerized with 16.2 parts 37% HCHO in the presence of 30 parts 1% NaOH and 209 parts H₂O, and the composition was blended with 100 parts (as solid part) of a composition of KI 0.5, ~~urea~~ 4.0, and Sumilizer WX-R [4,4'-thiobis(6-tert-butyl-3-methylphenol)] (I) [96-69-5] 2.0 parts and with a latex containing 40% Pyratex (butadiene-styrene-vinylpyridine-copolymer) [9019-71-0] and H₂O. Nylon 6 cord was immersed in the resulting composition (solid content 20%) to 4% resin content, heat-treated 3 min at 150°, aged 3 days at 100°, and embedded in a ~~rubber~~ composition to give a composite with strength of bonding between layers 11.5 kg/9mm, compared with 3.0 kg/9mm for a composite containing cords treated with a similar composition without ~~urea~~, KI, and I.

IT 57-13-6, uses and miscellaneous 96-69-5
RL: MOA (Modifier or additive use); USES (Uses)
(heat stabilizers, for finishing of nylon cord)

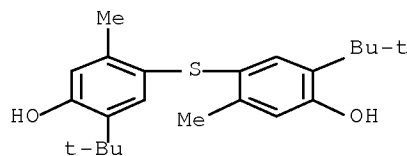
RN 57-13-6 HCAPLUS

CN Urea (CA INDEX NAME)



RN 96-69-5 HCAPLUS

CN Phenol, 4,4'-thiobis[2-(1,1-dimethylethyl)-5-methyl- (CA INDEX NAME)



IPCI B32B0007-12; B32B0025-06; C09J0003-16
 IPCR B29C0067-00 [I,A]; B29B0015-00 [I,A]; B29C0055-00 [I,A]; B29C0065-70
 [I,A]; B29C0070-00 [I,A]; B32B0007-12 [I,A]; B32B0025-06 [I,A];
 B32B0025-10 [I,A]; B32B0037-00 [I,A]; C08J0005-04 [I,A]; C08J0005-06
 [I,A]; C09J0121-00 [I,A]; D06M0013-02 [I,A]; D06M0013-152 [I,A];
 D06M0013-322 [I,A]; D06M0013-325 [I,A]; D06M0013-335 [I,A]; D06M0013-402
 [I,A]; D06M0013-432 [I,A]; D06M0015-693 [I,A]; D06M0101-00 [N,A];
 D06M0101-16 [N,A]; D06M0101-30 [N,A]; D06M0101-34 [N,A]
 CC 38-13 (Elastomers, Including Natural Rubber)
 ST nylon ~~tire~~ cord finishing; polyamide ~~tire~~ cord
 finishing; potassium iodide cord finishing; ~~urea~~ nylon cord
 finishing; heat resistant nylon cord; phenolic resin cord finishing
 IT Heat stabilizers
 (potassium iodide, ~~urea~~ and thiobis(butylmethylphenol), for
 finishing nylon ~~tire~~ cord)
 IT ~~Tires~~
 (cord, finishing of, with formaldehyde-resorcinol copolymer and
 stabilizers, heat-resistant)
 IT ~~57-13-6~~, uses and miscellaneous ~~96-69-5~~ 7681-11-0,
 uses and miscellaneous
 RL: MOA (Modifier or additive use); USES (Uses)
 (heat stabilizers, for finishing of nylon cord)
 IT 24969-11-7
 RL: USES (Uses)
 (nylon cord treated by, for improved adhesion to ~~rubber~~)

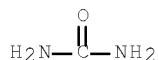
L73 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 1967:517915 HCAPLUS Full-text
 DOCUMENT NUMBER: 67:117915
 ORIGINAL REFERENCE NO.: 67:22267a,22270a
 TITLE: Curing of ethylene-vinyl chloride polymers
 PATENT ASSIGNEE(S): Monsanto Co.
 SOURCE: Brit., 18 pp.
 CODEN: BRXXAA
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1086265		19671004	GB 1964-42788	19641020 <--
DE 1569163			DE	
US 3356658		19671205	US 1963-317764	19631021 <--
PRIORITY APPLN. INFO.:			US	19631021 <--

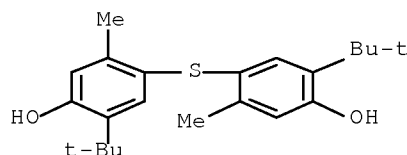
AB Ethylene-vinyl chloride copolymers (I) were cured in the presence of S and a phenol,
 polyol, bisphenol, ~~urea~~, thiourea, dimethylolurea (II), or epoxy compound

stabilizer. The crosslinked products obtained had improved strength, elongation, dimensional stability, and solvent resistance when compared with vulcanizates prepared from the standard peroxidetype cure system. Thus, I 100, Philblack O 50, stearic acid 1, ZnO 5, S 1.5, Tellurac (Te diethyldithiocarbamate) 2, Thiotax 1, and pentaerythritol (III) 7 parts were cured at 310°F. The composition cured in 19 min. to yield a vulcanizate with a % elongation of 175, a retained elongation of 8%, and a tensile strength of 3300 psi. When the effects of varying types of fillers were investigated, Philblack E was the best reinforcement. The optimum loading was 50 parts black per 100 parts resin. The effects of various stabilizers were determined by using both 51-7 and 35 mole % I. Performance was evaluated by an oven cure. The best stabilizers for prevention of char and metal attack were, in approx. order of their effectiveness: thiourea, III, glycerol, Resimene U-920 (a melamine resin), Epoxol 9-5 (epoxidized soybean oil), II, and urea. When stabilizer combinations were studied for the prevention of polymer decomposition and corrosive attack of molds, thiourea and glycerol were the most effective.

IT 57-13-6, uses and miscellaneous 96-69-5
 RL: USES (Uses)
 (as stabilizer for ethylene-vinyl chloride rubber
 vulcanization with sulfur)
 RN 57-13-6 HCAPLUS
 CN Urea (CA INDEX NAME)



RN 96-69-5 HCAPLUS
 CN Phenol, 4,4'-thiobis[2-(1,1-dimethylethyl)-5-methyl- (CA INDEX NAME)



IPCI C08F
 IPCR C08K0003-06 [I,A]
 CC 38 (Elastomers, Including Natural Rubber)
 IT Soybean oil
 RL: USES (Uses)
 (epoxidized, as stabilizer for ethylene-vinyl chloride rubber
 vulcanization with sulfur)
 IT Carbon black, uses and miscellaneous
 RL: USES (Uses)
 (ethylene-vinyl chloride rubbers containing,
 vulcanization of, with sulfur in presence of polyols or
 urea derivs.)
 IT Rubber, synthetic
 (ethylene-vinyl chloride, vulcanization of, with sulfur in

- presence of polyols or urea derivs.)
- IT Crosslinking
(of ethylene-vinyl chloride rubber with sulfur in presence of polyols or urea derivs.)
- IT Phosphorous acid
RL: USES (Uses)
(as stabilizer for ethylene-vinyl chloride rubber vulcanization with sulfur)
- IT 56-81-5, uses and miscellaneous 57-13-6, uses and miscellaneous 62-56-6, uses and miscellaneous 75-56-9, uses and miscellaneous 96-69-5 107-15-3, uses and miscellaneous 115-77-5, uses and miscellaneous 126-14-7 140-95-4 142-18-7 9003-20-7, uses and miscellaneous
RL: USES (Uses)
(as stabilizer for ethylene-vinyl chloride rubber vulcanization with sulfur)
- IT 108-78-1, Melamine
RL: USES (Uses)
(polymers with formaldehyde, as stabilizer for ethylene-vinyl chloride rubber vulcanization with sulfur)
- IT 25037-78-9P, preparation
RL: PREP (Preparation)
(rubber, vulcanization of, with sulfur in presence of polyols or urea derivs.)

L73 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1966:457536 HCAPLUS Full-text

DOCUMENT NUMBER: 65:57536

ORIGINAL REFERENCE NO.: 65:10756b-d

TITLE: Agents for controlling the vulcanization of polythenes

INVENTOR(S): Larsen, Hans R.

PATENT ASSIGNEE(S): Union Carbide Canada Ltd.

SOURCE: 8 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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FR 1419940		19651203	FR 1964-994937	19641113 <--
PRIORITY APPLN. INFO.:			US	19631115 <--

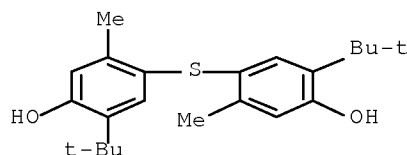
AB Materials for increasing the temperature at which organic peroxide-containing polythenes vulcanize are those normally used as antioxidants or accelerators, or those capable of acting as both. Antioxidants include aromatic amines of the type tolylene-2,4-diamine, phenolic compds., such as phenol-formaldehyde-resins, or hindered phenols, such as 4-methyl-2,6-di-tert-butylphenol, and addition products of Me2CO and PhNH2. Accelerators used are 2-mercaptobenzotriazole or its derivs., sulfides of N,N'-disubstituted dithiocarbamic acid, or thioureas, such as dimethylthiourea. Those materials acting as antioxidant, and accelerator, are metallic salts of general structure MXs, where M may be Zn, Pb, Cu, Bi, Te, or Se, s is the valency of the metal, and X is a radical of the type -SC(S)NR1R2, where R1 and R2 are alkyl or aralkyl radicals containing 1-7 C atoms, or where R1R2 is a divalent pentamethylene group. Polythenes containing one of these compds. and peroxides, such as Bz2O2, tert- or di-tert-Bu perbenzoate, or dicumyl peroxide, can

be processed at temps. of .apprx.150° and ~~vulcanize~~ at .apprx.160°, whereas polythenes containing only the peroxide can usually only be processed at <35°.

IT 96-69-5, m-Cresol, 4,4'-thiobis[6-tert-butyl-
(ethylene polymer cross-linking by organic peroxides regulated by)

RN 96-69-5 HCAPLUS

CN Phenol, 4,4'-thiobis[2-(1,1-dimethylethyl)-5-methyl- (CA INDEX NAME)



IPCI C08F

IPCR C08K0005-00 [I,A]; C08L0023-06 [I,A]

CC 48 (Plastics Technology)

IT Bonds
(cross-linkage formation, in ethylene polymers by peroxides, retardation by antioxidants and ~~vulcanization~~ accelerators)

IT Peroxides
(cross-linking by, of ethylene polymers, retardation by antioxidants and ~~rubber vulcanization~~ accelerators)

IT Rubber
(~~vulcanization~~ accelerators for, as retarders in ethylene polymer cross-linking by peroxides)

IT 128-37-0, p-Cresol, 2,6-tert-butyl-
(as retarder with ~~rubber vulcanization~~ accelerators in ethylene polymer cross-linking by peroxides)

IT 9002-88-4, Ethylene polymers
(cross-linking of, by peroxides, retardation by antioxidants and ~~rubber vulcanization~~ accelerators)

IT 96-69-5, m-Cresol, 4,4'-thiobis[6-tert-butyl- 97-74-5, Sulfide, bis(dimethylthiocarbamoyl) 100-97-0, Hexamethylenetetramine 102-08-9, Carbanilide, thio- 120-78-5, Benzothiazole, 2,2'-dithiobis- 137-30-4, Zinc, bis(dimethyldithiocarbamato)- 18907-31-8, Zinc, bis(2-benzothiazolethiolato)-
(ethylene polymer cross-linking by organic peroxides regulated by)

IT 614-45-9, Peroxybenzoic acid, tert-butyl ester
(ethylene polymer cross-linking by, retardation by antioxidants and ~~rubber vulcanization~~ accelerators)

IT 137-26-8, Disulfide, bis(dimethylthiocarbamoyl)
(ethylene polymer ~~vulcanization~~ inhibition by)

IT 62-56-6, Urea, thio-
(N-alkyl derivs., ethylene-polymer cross linking by organic peroxides regulated by)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L73 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1952:62713 HCAPLUS Full-text

DOCUMENT NUMBER: 46:62713

ORIGINAL REFERENCE NO.: 46:10490b-d

TITLE: The toxicity and skin effects of compounds used in the rubber and plastics industries. I. Accelerators, activators, and antioxidants

AUTHOR(S): Mallette, F. S.; Von Haam., E.

CORPORATE SOURCE: Firestone Tire & Rubber Co., Akron, O.

SOURCE: Archives of Industrial Hygiene and Occupational Medicine (1952), 5, 311-17

CODEN: AIHOAX; ISSN: 0376-1096

DOCUMENT TYPE: Journal

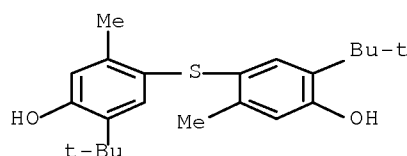
LANGUAGE: Unavailable

AB In laboratory toxicity studies of accelerators, the LD50 was 0.25g./kg. body weight for piperidinium cyclopentamethylene dithiocarbamate, 0.25 for N-isopropylbenzothiazolesulfonamide, 6.0 for bis(2-benzothiazolylthiomethyl)urea, and 1.2 for N-cyclohexyl N-diethylthiocarbonyl sulfonamide(Thiopentex); of activators, 0.2 for cyclohexylamine, 4.0 for cyclohexylammonium stearate, and 0.58 for cyclohexylammonium formate; for antioxidants, 0.62 for diamylphenol, 8.0 for 2,6-di-tert-butyl-4-methylphenol, 0.25 for triphenyl phosphite, 5.0 for bis(4-tert-butyl-m-cresol) sulfide, and 4.5 for N,N'-di-2-naphthyl-p-phenylenediamine. In human exposures compds. of all 3 groups were mild to severe skin irritants, and many, especially antioxidants, were moderately sensitizing

IT 96-69-5, m-Cresol, 4,4'-thiobis[6-tert-butyl- (skin effects and toxicity of)

RN 96-69-5 HCAPLUS

CN Phenol, 4,4'-thiobis[2-(1,1-dimethylethyl)-5-methyl- (CA INDEX NAME)



CC 13 (Chemical Industry and Miscellaneous Industrial Products)

IT Sensitization (by compds. in plastics and rubber industries)

IT Rubber (deterioration-preventing agents and vulcanization accelerators and activators for, skin effect and toxicity of)

IT Skin (effect of compds. in plastics and rubber industries on)

IT Antioxidants (in plastics and rubber industries, skin effects and toxicity of)

IT 28652-04-2P 34961-28-9P

RL: SPN (Synthetic preparation); PRP (Properties); PREP (Preparation) (The toxicity and skin effects of compounds used in the rubber and plastics industries. I. Accelerators, activators, and antioxidants)

IT 93-46-9, p-Phenylenediamine, N,N'-di-2-naphthyl- 95-35-2, Benzothiazole, 2,2'-[ureylenebis(methylenethio)]bis- 96-69-5, m-Cresol, 4,4'-thiobis[6-tert-butyl- 98-77-1, 1-Piperidinecarbodithioic acid, piperidine salt 101-02-0, Phenyl phosphite, (PhO)3P 108-91-8, Cyclohexylamine 120-95-6, Phenol, 2,4-bis(1,1-dimethylpropyl)- 128-37-0, p-Cresol, 2,6-di-tert-butyl- 10220-34-5,

2-Benzothiazolesulfenamide, N-isopropyl- 15860-21-6, Stearic acid,
cyclohexylamine salt 52185-80-5, Hydrosulfamine,
N-cyclohexyl-S-(diethylthiocarbamoyl)-
(skin effects and toxicity of)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD
(2 CITINGS)